STATE OF SOUTH CAROLINA

BEFORE THE PUBLIC SERVICE COMMISSION

DOCKET NO. 2019-226-E

Late Filed Exhibit of Anna Sommer

Anna Sommer submitted direct and surrebuttal testimony on behalf of the South Carolina Coastal Conservation League ("CCL") and the Southern Alliance for Clean Energy ("SACE") in the above-captioned proceeding in which she testified that the 2020 Integrated Resource Plan ("2020 IRP") filed by Dominion Energy South Carolina ("DESC" or "the Company") did not satisfy all the requirements of Act 62 (also known as the Energy Freedom Act), as codified in S.C. Code Ann. §58-37-40. DESC included a table on page 7 of the 2020 IRP where it purported to state which sections of the 2020 IRP met the requirements of §58-37-40(B); Ms. Sommer's direct testimony included a similar table ("Table 1") with Ms. Sommer's assessment of whether the 2020 IRP satisfied each of the requirements of the EFA. Ms. Sommer concluded that the 2020 IRP did not meet all the requirements of the statute, and recommended that the Commission reject the 2020 IRP as filed. On October 14, 2020, during the evidentiary hearing for Docket No. 2019-226-E, Commissioner Williams requested that Ms. Sommer submit a late-filed exhibit updating Table 1 as needed based on the Company's IRP Supplement submitted with its rebuttal testimony. SACE and CCL submit this late-filed exhibit in response to Commissioner Williams' request.

The updated version of Ms. Sommer's table ("Updated Table 1") is presented below. The IRP Supplement did not affect Ms. Sommer's conclusions with respect to

whether the IRP satisfied the provisions of the EFA. The IRP Supplement primarily affected the results and number of scenarios the Company ran, rather than materially changing the type, quantity, and quality of information presented in the IRP. Furthermore, the IRP Supplement was only intended as a revision of Section II.B.5, which DESC only mentioned a handful of times in the table on page 7 of its IRP. As a result, Updated Table 1 contains very few changes from the Table 1 in Ms. Sommer's direct testimony, except it includes an additional column explaining how DESC could amend its IRP to rectify any deficiencies and make its IRP compliant with the EFA.

Updated Table 1. Assessment of DESC's Satisfaction of Act 62 Requirements, Including

Consideration of IRP Supplement

Act 62 58-37-40	Requirement	Does the IRP Section Referenced by DESC Satisfy this Element?	Example of Manner in which DESC can Rectify Deficiency
(B)(1)(a)	a long-term forecast of the utility's sales and peak demand under various reasonable scenarios;	Sections I.A and I.B of the DESC IRP lack sufficient information to judge the reasonableness of the scenarios, don't explicitly provide the high and low scenario values, and seemingly do not even use them.	See page 26, lines 1 – 6 of Ms. Sommer's Direct Testimony.
(B)(1)(b)	the type of generation technology proposed for a generation facility contained in the plan and the proposed capacity of the generation facility, including fuel cost sensitivities under various reasonable scenarios;	Section II.B.5.c provides the technology types, but the only fuel cost sensitivities given are for gas and do not appear to be internally consistent with the CO ₂ prices used.	Fuel cost and CO ₂ sensitivities should be derived from the same internal assumptions. For example, it's not clear under what circumstances a Low Gas price would be equally plausible with both a \$0/ton CO ₂ price and a \$25/ton CO ₂ price.

(B)(1)(c)	projected energy purchased or produced by the utility from a renewable energy resource;	Section II.B.3.c does not specify the source it comes from. Further, it only shows RE from one portfolio. In Section II.B.5.c.xi, it gives a table of RE by decade, but this should be annual to be digestible and it lacks the type and source of energy.	Figure 1.2 at page 7 in Pacificorp's 2019 IRP¹ could be used as a model for this. It gives cumulative capacity by type, but the graph could also be presented on an annual energy basis. Including all sources of energy helps to visualize the relative magnitude of renewables.
(B)(1)(d)	a summary of the electrical transmission investments planned by the utility;	Section III includes a table with planned transmission projects and the tentative completion date for each project. The section does not describe the purpose of any of the studies mentioned nor how any of these investments may affect the various portfolios evaluated by DESC.	DESC's 2020 IRP at page 1 says, "This IRP also reflects DESC's commitment to clean energy in the energy efficiency programs offered to customers and in the probable modifications to the Company's electric transmission and distribution grid which will facilitate the growth of clean energy solutions while assuring that energy continues to be provided in a safe, reliable, and affordable manner." This section should be revised so that the connection between grid modifications and clean energy is clear.

¹ Pacificorp 2019 IRP, available at https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/energy/integrated-resource-plan/2019 IRP Volume I.pdf

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(B)(1)(e)	several resource portfolios developed with the purpose of fairly evaluating the range of demand-side, supply-side, storage, and other technologies and services available to meet the utility's service obligations. Such portfolios and evaluations must include an evaluation of low, medium, and high cases for the adoption of renewable energy and cogeneration, energy efficiency, and demand response measures, including consideration of the following: (i) customer energy efficiency and demand response programs; (ii) facility retirement assumptions; and (iii) sensitivity analyses related to fuel costs, environmental regulations, and other uncertainties or risks;	Section II.B.5.c provides a table of the potential resources considered and a description of the resource plans. But DESC did not appear to evaluate low, medium, and high renewable cases. The IRP is not clear as to whether DESC adjusted supply-side capacity in plans based on the level of DSM assumed. And the Company does not appear to have evaluated low, medium, and high cases of cogeneration (Section II.B.3.d). Finally, it is unclear how DR was treated.	Act 62 requires three cases for the adoption of renewable energy, cogeneration, energy efficiency, and demand response. Not only are most of those cases missing, but DESC would need to provide sufficient information in the IRP in order to demonstrate that those cases are reasonable.
(B)(1)(f)	data regarding the utility's current generation portfolio, including the age, licensing status, and remaining estimated life of operation for each facility in the portfolio;	Section II.B.1 discusses the licensing status, age, and end-of-life date of DESC's hydro and nuclear resources. Section II.B.3 discusses "Future Clean Energy" so it's not clear how this relates. Section II.B.4.shows the online date, probable retirement date, and size and type of existing units. But without explanation, DESC doesn't seem to adopt all these dates in its modeling.	See page 13, lines 13 – 21 of Ms. Sommer's Direct Testimony.

(B)(1)(g)	plans for meeting current and future capacity needs with the cost estimates for all proposed resource portfolios in the plan;	Section II.B.5.c provides net present values ("NPVs"), though I think there is a more useful way to do this that I discuss later in testimony. Two explicit plans are given—the tables provided for RP2 and RP8 on pages 51 and 52 of the IRP. And the additional plans are given in Appendix B.	See page 17, line 19 page 18, line 5 of Ms. Sommer's Direct Testimony. Additionally, it can be very helpful to report annual revenue requirements, which can also help visualize whether later planning costs have a large influence on total system cost. Michigan IRP rules, for example, require this.
(B)(1)(h)	an analysis of the cost and reliability impacts of all reasonable options available to meet projected energy and capacity needs; and	Section II.B.5 provides no rate, bill, or reliability impacts, and only provides tables with data on the calculation of effective reserve margin for RP2 and RP8, though the effective reserve margins are given for the remaining plans in Appendix B.	See page 17, lines 6 – 15 of Ms. Sommer's Direct Testimony and Exhibit AS-4.
(B)(1)(i)	a forecast of the utility's peak demand, details regarding the amount of peak demand reduction the utility expects to achieve, and the actions the utility proposes to take in order to achieve that peak demand reduction.	Section I.A does contain a forecast of peak demand, but Sections II.A.1 and II.A.2 provide only a single point estimate of DR reduction and no projection of EE related investment. Further, because of the requirement to provide low, medium, and high levels of DSM it would be reasonable to interpret this requirement as providing that projection for all scenarios as well as a description of how the assumptions underlying those scenarios change.	Act 62 requires details of the utility's planned peak demand reduction and the actions the utility would take to achieve those reductions. These are simply missing from the IRP.

Updated Table 1 Cont'd

(B)(2)	An integrated resource plan may include distribution resource plans or integrated system operation plans.	Section II.A.2 provides nothing approximating a distribution resource plan ("DRP") or integrated system operation plan ("ISOP"). And Section II.B.2 is a mere two paragraphs describing the Company's AMI and distribution automation activities. This does not reasonably constitute a DRP or ISOP either.	The alignment of distribution and integrated resource plans is an emerging area for which a best practice has not yet been established. Duke Energy Carolina's 2020 IRP² provides one example, however, and is descriptive of the steps it is taking to begin combining the IRP and DRP and has several steps that DESC could emulate.
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 $^{^2}$ See Duke Energy Carolinas 2020 IRP at pp. 124-130, available at $\underline{\text{https://dms.psc.sc.gov/Attachments/}} \underline{\text{Matter/39c738b3-2047-43f7-866f-734a445c21d4}}.$

STATE OF SOUTH CAROLINA BEFORE THE PUBLIC SERVICE COMMISSION DOCKET NO. 2019-226-E

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In the Matter of:)		
South Carolina Energy Freedom Act)		
(House Bill 3659) Proceeding)	CERTIFICATE OF SERVICE	
Related to S.C. Code Ann. Section		CERTIFICATE OF SERVICE	
58-37-40 and Integrated Resource)		
Plans for Dominion Energy South)		
Carolina, Incorporated)		

I certify that the following persons have been served with one (1) copy of the Hearing Exhibit 7: Sommer Late-Filed Exhibit Updating Table 1 of Sommer Direct Testimony by electronic mail and/or U.S. First Class Mail at the addresses set forth below:

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October 21, 2020

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